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PLASTEC NOTE 2

INDEXED REFERENCES PERTAINING TO DEGRADATION AND FRACTURE OF PLASTICS

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INDEXED REFERENCES PERTAINING TO DEGRADATION AND FRACTURE OF PLASTICS

BY

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AUGUST, 1961

PLASTICS TECHNICAL EVALUATION CENTER

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SUMMARY

Two hundred and ten selected references pertaining to the degradation and the fracture of plastics are listed herein. These are cross indexed in terms of specific types or classes of plastic materials, and in terms of pertinent subjects such as: degradation, failure mechanism, fracture, stress cracking.

This report represents one part of a continuing effort in this field.

INTRODUCTORY COMMENTS

A literature search has been conducted for articles pertaining to the degradation and fracture of plastics. Some key words used in searching the plastics literature were; brittle, crazing, degradation, embrittlement, fracture and stress cracking. References on relatively slow degradation processes such as weathering have been minimized. Some references on the effects of nuclear radiation have been included.

Two hundred and ten selected references have been listed and cross indexed in terms of materials and subject. The materials index identifies those references which pertain to a specific type or class of plastic material; that is, polystyrene, glass reinforced laminates, etc. The subject index identifies those references relating to a specific subject; that is, degradation, failure mechanism, fracture, stress cracking, etc.

This literature search and related work such as the evaluation of references and the compilation of data are continuing. It was felt that the indexed references were of sufficient importance to justify publication at this time.

ORGANIZATION

The material presented herein has been given a functional organization in three parts.

Part I, List of References, reports the outcome of the literature search. The references are numerically identified for within-report usage.

Part II, Materials Index, identifies those references which pertain to a specific type of plastic. This makes possible the easy location of the references on a material of particular interest.

Part III, Subject Index, identifies those references which pertain to a specific subject. This provides a guide among the references from the standpoint of subject interest.

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PLASTEC Note 2 August 1961

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